

WHAT IS CLAIMED IS:

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1. A method of processing data associated with a plurality of data channels comprising:
 - designating one of the plurality of data channels as a primary channel and designating the other of the plurality of data channels as non-primary channels;
 - filtering to remove noise from the image data associated with the primary channel less than the image data associated with the non-primary channels;
 - operating upon said filtered image data in order to obtain resultant data for the primary channel; and
 - repeating each of the designating, filtering and operating steps for each of the other plurality of channels, such that each channel is designated a primary channel and resultant data is obtained for each of the plurality of channels.
2. A method according to claim 1, further comprising the step of inputting data obtained from scanning a negative being developed by electronic film development.
3. A method according to claim 1, further including the step of inputting image data obtained from scanning an image.
4. A method according to claim 1 wherein the step of filtering does not filter to remove noise from the image data associated with the primary channel.
5. A method according to claim 1 wherein the image data is operated upon one pixel at a time.
6. A method according to claim 1 wherein a group of pixels are used to determine the resultant data for each pixel.

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1 7. A method of processing image data associated with red, green and blue color
2 channels obtained from an image comprising the steps of:

3 designating one of the red, green and blue color channels as a first primary
4 channel and designating the other channels as non-primary channels, such that image data
5 associated with the first primary channel can be operated upon independently of the
6 image data associated with the non-primary channels;

7 filtering to remove noise from the image data associated with first primary
8 channel less than the image data associated with the non-primary channels to obtain first
9 filtered image data;

10 operating upon said first filtered image data in order to obtain first resultant data
11 for the first primary channel;

12 designating one of the non-selected red, green and blue color channels as the
13 second primary channel and designating the other channels as non-primary channels, such
14 that image data associated with the second primary channel can be operated upon
15 independently of the image data associated with the non-primary channels;

16 filtering to remove noise from the image data associated with second primary
17 channel less than the image data associated with the non-primary channels to obtain
18 second filtered image data;

19 operating upon said second filtered image data in order to obtain second resultant
20 data for the second primary channel;

21 designating the remaining non-selected red, green and blue color channels as the
22 third primary channel and designating the other channels as non-primary channels, such
23 that image data associated with the third primary channel can be operated upon
24 independently of the image data associated with the non-primary channels;

25 filtering to remove noise the image data associated with third primary channel less
26 than the image data associated with the non-primary channels to obtain third filtered
27 image data; and

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28 operating upon said third filtered image data in order to obtain third resultant data
29 for the third primary channel.

1 8. A method according to claim 7, further including the step of inputting image data
2 obtained from scanning a negative being developed by electronic film development.

1 9. A method according to claim 7, further including the step of inputting image data
2 obtained from scanning an image.

1 10. A method according to claim 7 wherein each of the steps of filtering does not
2 filter the image data associated with the primary channel.

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1 15. A method for correcting image information associated with a plurality of
2 information channels comprising:

3 obtaining image information from a first information channel;

4 obtaining image information from at least one additional information channel,
5 wherein at least a portion of the information from the at least one additional information
6 channel includes information associated with the information obtained from the first
7 channel;

8 transforming the image information obtained from the at least one additional
9 information channel to obtain transformed image information associated with the first
10 channel; and

11 combining at least a portion of the transformed image information associated with
12 the first information channel with at least a portion of the information from the first
13 information channel to obtain corrected image information associated with the first
14 information channel.

1 16. The method as in Claim 15, wherein transforming comprises filtering the image
2 information obtained from the at least one additional information channel to minimize
3 noise.

1 17. The method as in Claim 15, wherein the method implements a color correction
2 matrix.

1 18. The method as in Claim 15, wherein the image information to be corrected is
2 from a photographic image.

1 19. The method as in Claim 15, further comprising obtaining image information from
2 a third information channel, wherein the first information channel is a first color channel,

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the at least one additional information channel is a second color channel, and the third information channel is a third color channel.

20. The method as in Claim 15, wherein at least a portion of the information obtained from the first channel includes information associated with the information obtained from the at least one additional channel, and wherein the method further comprises:

transforming the image information obtained from the first information channel to obtain transformed image information associated with the at least one additional channel; and

combining at least a portion of the transformed image information associated with the at least one additional channel with at least a portion of the image information obtained from the at least one additional channel to obtain corrected image information associated with the at least one additional channel.

21. The method as in Claim 20, wherein the image information obtained from the at least one additional image information channel is substantially unaltered before combining.

22. The method as in Claim 15, wherein the information obtained from the first information channel is substantially unaltered before combining.

23. The method as in Claim 15, wherein obtaining image information comprises scanning an image.

24. The method as in Claim 15, wherein obtaining image information comprises scanning a photographic image during development.

1 25. A digital file tangibly embodied in a computer readable medium, said digital file
2 generated by implementing a method comprising:

3 obtaining image information from a first information channel;

4 obtaining image information from at least one additional information channel,
5 wherein at least a portion of the information from the at least one additional information
6 channel includes information associated with the information obtained from the first
7 channel;

8 transforming the image information obtained from the at least one additional
9 information channel to obtain transformed image information associated with the first
10 channel; and

11 combining at least a portion of the transformed image information associated with
12 the first information channel with at least a portion of the information from the first
13 information channel to obtain corrected image information associated with the first
14 information channel.

1 26. The digital file as in Claim 25, wherein transforming comprises filtering the
2 image information obtained from the at least one additional information channel to
3 minimize noise.

1 27. The digital file as in Claim 25, wherein the method implements a color correction
2 matrix.

1 28. The digital file as in Claim 25, wherein the image information to be corrected is
2 from a photographic image.

1 29. The digital file as in Claim 25, further comprising obtaining image information
2 from a third information channel, wherein the first information channel is a first color

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channel, the at least one additional information channel is a second color channel, and the third information channel is a third color channel.

30. The digital file as in Claim 25, wherein at least a portion of the information obtained from the first channel includes information associated with the information obtained from the at least one additional channel, and wherein the method further comprises:

transforming the image information obtained from the first information channel to obtain transformed image information associated with the at least one additional channel; and

combining at least a portion of the transformed image information associated with the at least one additional channel with at least a portion of the image information obtained from the at least one additional channel to obtain corrected image information associated with the at least one additional channel.

31. The digital file as in Claim 30, wherein the image information obtained from the at least one additional image information channel is substantially unaltered before combining.

32. The digital file as in Claim 25, wherein the image information obtained from the first information channel is substantially unaltered before combining.

33. The digital file as in Claim 25, wherein obtaining image information comprises scanning an image.

34. The digital file as in Claim 25, wherein obtaining image information comprises scanning a photographic image during development.

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1 35. An image processing system comprising:
2 at least one illumination source capable of illuminating a physical medium;
3 at least one detector enabled to generate electrical signals in response to light, said
4 electrical signals representative of image information obtained from a first information
5 channel and at least one additional information channel, wherein at least a portion of the
6 information from the at least one additional information channel includes information
7 associated with the information obtained from the first channel, and said detector further
8 enabled to output said electrical signals for image processing;
9 at least one processor;
10 memory operably associated with said processor; and
11 a program of instructions, said program of instructions capable of being stored in
12 said memory and executed by said processor, said program of instructions enabled to
13 transform the image information obtained from the at least one additional information
14 channel to obtain transformed image information associated with the first channel, and
15 to combine at least a portion of the transformed image information associated with the
16 first information channel with at least a portion of the information from the first
17 information channel to obtain corrected image information associated with the first
18 information channel.

1 36. The image processing system as in Claim 35, wherein said program of
2 instructions is further enabled to filter the image information obtained from the at least
3 one additional information channel to minimize noise.

1 37. The image processing system as in Claim 35, wherein said program of
2 instructions is enabled to implement a color correction matrix.

1 38. The image processing system as in Claim 35, wherein the image information to
2 be corrected is from a photographic image.

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3 39. The image processing system as in Claim 35, wherein said electrical signals
4 further represent information from a third information channel, and wherein the first
5 information channel is a first color channel, the at least an additional information channel
6 is a second color channel, and the third information channel is a third color channel.

1 40. The image processing system as in Claim 35, wherein at least a portion of the
2 information obtained from the first channel includes information associated with the
3 information obtained from the at least one additional channel, and wherein said program
4 of instructions is further enabled to transform the image information obtained from the
5 first information channel to obtain transformed image information associated with the at
6 least one additional channel, and to combine at least a portion of the transformed image
7 information associated with the at least one additional channel with at least a portion of
8 the image information obtained from the at least one additional channel to obtain
9 corrected image information associated with the at least one additional channel.

1 41. The image processing system as in Claim 40, wherein the image information
2 obtained from the at least one additional image information channel is substantially
3 unaltered before combining.

1 42. The image processing system as in Claim 35, wherein the image information
2 obtained from the first information channel is substantially unaltered before being
3 combined.

1 43. The image processing system as in Claim 35, wherein the image processing
2 system is a digital film processing system.

1 44. The image processing system as in Claim 35, wherein the image processing
2 system is a copy machine.

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3 45. The image processing system as in Claim 35, wherein the image processing
4 system is a facsimile machine.

1 46. The image processing system as in Claim 35, wherein the image processing
2 system is a scanner.

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